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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/771,942 | 01/30/2001 | Chiyoshige Nakazawa | 249-161 | 9698 |

7590 02/14/2002

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[REDACTED] EXAMINER

NGHIEM, MICHAEL P

[REDACTED] ART UNIT

[REDACTED] PAPER NUMBER

2861

DATE MAILED: 02/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|---|------------------|-----------------|
| <p style="text-align: center;">Office Action Summary</p> | Application No. | Applicant(s) |
| | 09/771,942 | NAKAZAWA ET AL. |
| | Examiner | Art Unit |
| | Michael P Nghiem | 2861 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on _____.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 22-42 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 22-24, 26, 27, 30, 31, 33 and 40 is/are rejected.

7) Claim(s) 25, 28, 29, 32, 34-39, 41 and 42 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 30 January 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

| | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3,4</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: claim 34, "... tips projected from the rear of the second cartridge" is not supported by Fig. 5 which shows tip (9) projected from the side of the second cartridge.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show opening 161a (page 26, lines 7, 21) as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP □ 608.02(d). Correction is required.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the opening of the side plate portion (claim 23) and the protection guide surrounding the first detection projection (claim 35) must be shown or the feature(s) cancelled from the claim(s). No new matter should be entered.

Claim Objections

4. Claim 27 is objected to because of the following informalities:

- “outlets is clamped” should be – outlets are clamped --.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 25, 27, 28, 41, and 42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The following limitations lack antecedent basis:

Claims 25, 27, “the partition plate clamp faces”.

Claim 41, “said ink cartridge” (line 9). Which one?

Claim 41, “said ink jet head being adapted to execute any desired printing on record paper *relatively moved*” is unclear.

Claim 41, the smallest value cannot be obtained merely from dividing the amount of ink in each ink bag housed in each ink cartridge by the number of nozzles of the ink nozzle

group corresponding to the ink bag without comparing the results (see specification, page 47, lines 23-25).

The remaining claims are also rejected under 35 U.S.C. 112, second paragraph, for being dependent upon a rejected base claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 22-24, 26, 27, 30, 31, 33, and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Terasawa (US 4,695,851).

Terasawa discloses all the claimed features of the invention including:

- an ink cartridge (Figs. 3, 4) comprising:

- a cartridge main body (main body of 30) having a first case (main body excluding top wall of 30, Fig. 3) and a second case (top wall of 30) joined to the first case (Fig. 3);

- first and second ink bags (32's) each comprising a bag main body (main body of 32) storing ink and an outlet (outlet of 32's, Fig. 4) through which the ink can be discharged from the bag main body, the first and second ink bags being housed by the first case and the second case (Fig. 4),

- wherein when the first case and the second case are joined, the outlets of the first and second ink bags are pressed against each other by the first case and the second case (Fig. 4);

- the first case comprises a bottom plate portion (bottom wall of 30) and a side plate portion (side wall of 30) with an opening (opening without top wall of 30) on a top thereof for housing the first and second ink bags (Figs. 3, 4), and the second case covers the opening of the first case (top wall covers opening of 30, Fig. 3);

- a partition plate (partition between 32's, Fig. 4) attached to a predetermined position of the first case, said partition plate separating compartments housing the first ink bag and the second ink bag respectively (Fig. 4);

- a waste-ink holding member (36) for storing waste ink poured therein from the outside thereof, said waste-ink holding member attached to the second case (Fig. 4);

- each of the first case and the second case comprises an ink outlet clamp face (34) such that the ink outlets is clamped by the ink outlet clamp faces (ink outlets are clamped or held tightly by 34) for defining the positions of the ink outlets, and wherein at least one of the ink outlet clamp faces is elastically displaceable (34 is made of rubber);

- the first case forms a first ink cartridge (portion below partition, Fig. 4) for housing the first ink bag (32) and the second case forms a second ink cartridge (portion

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above partition, Fig. 4) for housing the second ink bag (32), further comprising a joint mechanism (34) for detachably joining the first ink cartridge and the second ink cartridge (Fig. 4);

- the second ink cartridge comprises a recess (recess above partition, Fig. 4) into which the first ink cartridge can be fitted in the thickness direction (Fig. 4);

Allowable Subject Matter

7. Claims 25, 28, 29, 32, and 34-39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 41 and 42 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Reasons For Allowance

9. The combination as claimed wherein the partition plate is detachable in a direction substantially perpendicular to the bottom plate portion along the side plate portion (claim 25) or each of the ink outlets comprises a contact portion in contact with each other and a clamp portion clamping the partition plate with one another (claim 28)

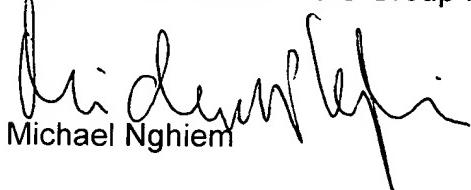
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or a second detection plate attached to the second ink bag wherein the first and second detection projections differ from each other at least in shape or color (claims 29, 34) or the joint mechanism has snap-fit parts formed in a side portion of the first ink cartridge and in a side portion of the second ink cartridge (claim 32) or the waste-ink holding member is placed in the cartridge having the smallest value resulting from dividing the amount of ink in the ink bag housed in each ink cartridge by the number of nozzles of the ink nozzle group corresponding to the ink bag (claim 41) is not disclosed, suggested, or made obvious by the prior arts of record.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nakazawa et al. (US 6,281,911) discloses snap-fit parts formed in a side portion of an first ink cartridge (Figs. 1, 3a).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (703) 306-3445. An inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at (703) 308-0956.



Michael Nghiem

February 8, 2002